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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/123,633	07/28/1998	LEONARD E. MESS	11675.168	5760

22901 7590 12/10/2001

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EXAMINER
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NGUYEN, VINH P

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 12/10/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/123,633

Applicant(s)

MESS, LEONARD E.

Examiner

VINH P NGUYEN

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4,6-15 and 39-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-15 and 39-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton (Pat # 4,900,948).

As to claims 1 and 10, Hamilton discloses a burn-in board (60) as shown in figure # 4 having an insulative substrate (60) for coupling to an electric apparatus, semiconductor devices (61) disposed over the top surface of the circuit board (60) and electrical conductors (traces) have terminal ends connected to the edge of the substrate (60) and receiving ends connected to the terminals of the semiconductor device (61). It appears that the top surface of the substrate is an outermost surface and the device (60) is not embedded into the substrate. Furthermore, it also appears that the terminals of the devices are located in the region between the device (60) and the outermost surface of the circuit board/substrate (60).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2,4,6-9 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton (Pat # 4,900,948).

Hamilton discloses a burn-in board (60) as shown in figure # 4. Hamilton does not mention about a specific groups of material for the substrate as recited in claims 2,6-7,9 and 11-12. However, the material for the substrate of Hamilton such as glass (alumina) "Nitride", "nonmetallic Nitride", "Carbide" or "nonmetallic carbide" would have been a well-known material and also alternative materials. As to claim 4, it appears that the receiving end protrude upwardly with respect to the substrate. As to claim 8, it appears that there is an insulating layer (adhesive material) coated over the conductors/traces on the top surface (outer most surface) of the substrate.

5. Claim 13-15 and 39-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinget al (pat # 5,659,245)

As to claims 13-15 and 39-48 Pinget al disclose a burn-in board as shown in figure # 1 having an insulative substrate (10) for coupling to an electric apparatus electrical conductor (70,75,80,85) with terminals (other end of the traces connected to the power supply "50" and the ground "40") and receiving ends connected to semiconductor devices (modules "20") located in the regions between the semiconductor devices and the terminals. It is noted that each of the semiconductor devices (20) lies at least in part over an outer most surface (top surface of the

insulative substrate (10). It appears that the top surface of the substrate is an outermost surface and the device (60) is not embedded into the substrate. Furthermore, it also appears that the terminals of the devices are located in the region between the device (60) and the outermost surface of the circuit board/substrate (60). It is noted that different insulative materials for the substrate such as glass (alumina) "Nitride", "nonmetallic Nitride", "Carbide" or "nonmetallic carbide" would have been a well-known material and also alternative materials. Since Applicants have not established the criticality of the selection of materials for the substrate, therefore the selection of the material would depend on the availability and the cost.

6. Applicant's arguments with respect to claims 1-2,4,6-15,39-48 on Oct. 15,2001 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fuoco (Pat # 5,103,168) discloses stress testing equipment with an integral cooling system.

Poh et al (Pat # 5,796,246) disclose test board and process of testing wide word memory parts.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is (703) 305-4914.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

  
VINH P. NGUYEN  
PRIMARY EXAMINER  
ART UNIT 2858

12/04/2001